BRETT WEILAND

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1603 North Cedar St, Rolla, MO 65401

Skills and Interests

- Programming in C, C++, assembly (primarily AVR and amd64)
- Scripting and automation in Bash and Python
- Reverse engineering and exploit development
- In-depth understanding of Linux, worked with distros varying from Debian to Gentoo

Education

- Johnson County Community College
 - o Associate of Science General Studies
- Missouri University of Science and Technology
 - o 3.418 Cumulative GPA
 - o Junior Year
 - Studying for Bachelors in Computer Engineering and Electrical Engineering

Work Experience

• Burns & McDonnell Internship

- o November 2019 October 2020
- Network Integration and Automation department
- Worked with servers running Linux, Windows, and VMware ESXI
- Hands-on experience configuring and installing networking equipment of brands such as Cisco, Alcatel-Lucent, and Nokia

Missouri S&T IT - Apps Anywhere Packaging

- o Summer 2024
- Packaged and tested applications virtualized with Numecent Cloudpaging
- Wrote scripts to handle issues with dynamic libraries and automate installations

Projects and Hobbies

x86-64 Operating System - https://git.bpcspace.com/indigoos.git/tree/src

- Building from ground up, including real-mode bootloader for BIOS
- o Boots multi-core, all code is tested SMP safe

• Binary exploitation - https://blog.bpcspace.com/

- Experience in shellcode, ROP attacks, Glibc dynamic linkage and heap exploits
- o CTFs and challenges such as those at https://pwnable.tw

Wristwatch - https://git.bpcspace.com/avr-wristwatch.git/tree/src

- Features 128x32 monochrome OLED display
- Working on features such as setting alarms, displaying video
- o Programmed for AVR without Arduino libraries; info retrieved from ATmega family datasheets

Tools Used

GCC	NASM	GDB
Ghidra	Pwnlib	Python
QEMU	ESXI	Git
AVRDUDE	Bash	Wireshark